## **GLOSSARY**

Actuated Type of control which responds to vehicle or pedestrian

detection.

Alternate Route An established route to direct motorist to use in the event of an

incident on a freeway. The list of official alternate routes for Connecticut is maintained by the Office of Maintenance &

Highway Operations -Division of Highway Operations.

Artery An arterial or main street generally considered the thoroughfare

with preferential right-of-way.

Background Cycle Term used in coordination systems to identify the cycle lengths

established by coordination unit and master control; takes

precedence over intersection control cycle length.

Band Through or green elapsed time between the first and last possible

vehicle permitted through an intersection in a progressive

coordination system.

Beginning of Green The actual beginning of artery green interval for a pre-timed

signal, or the theoretical beginning of artery green for a semi-

actuated signal when all phases max out.

Call A registration of a demand for right-of-way by traffic (vehicular

or pedestrian) to a controller.

Communications Channel A data path between the computer and a communications line.

Communication Line A transmission medium along which are placed two or more

devices which can send and receive data, such as a

communications channel and the intersection controllers.

Coordination The control of controller units in a manner to provide a

relationship between specific green indications at adjacent intersections in accordance with a time schedule to permit continuous operation of groups of vehicles along the street at a

planned speed.

Density A measure of the concentration of vehicles, stated as the number

of vehicles per mile per lane. Density = Volume/Distance

Detector A device used to sense the presence of a vehicle and actuate a

phase.

Drift Free Modem

A modem that has the capability of a storing pattern selection, cycle and offsets in the event of master to central communication

breakdown.

Force Off

Action taken by an external source which generates a signal to the controller causing termination of the green interval. Used in pre-emption and coordination.

Gap

The distance between vehicles, usually measured in time.

Minimum Gap

The setting on an actuated controller where the time allowed between successive actuation is set at or less than normal minimum vehicle spacing.

Gap Reduction

A volume density feature of an actuated controller whereby the extension interval is reduced to a preset minimum over a preselected period of time. The functional settings are time before reduction, extension, minimum gap, and time to reduce.

Initial, Variable

A volume density feature of an actuated controller whereby the minimum green interval can be increased to accommodate the number of vehicles which have passed over the approach detectors when the phase is in yellow or red. The functional settings are minimum green, added initial (seconds per actuation), and max initial.

Interval

Any one of the several divisions of the time cycle during which signal indications do not change.

Manual Pattern

A set of controller cycles, splits, and off sets for a traffic control network (or sub-network) which determines the relative green light sequencing of the intersections within the network (or subnetwork) and which can only be selected through an operator command.

Mode

The feature on actuated controller modules whereby several operating functions relating to a detector can be set. Those features include lock, non-lock, minimum recall, maximum recall and pedestrian recall.

Mutual Coordination

The simultaneous operation of the yellow display to closely spaced signals.

Overlap

A green indication that allows traffic movement during the green intervals of and clearance intervals between two or more phases.

Permissive Period

An extension of the yield period in which the controller will yield

to another phase.

Phase

The part of the total time cycle allotted to any traffic movement receiving the right-of-way during one or more intervals. Thus, the main street green, yellow and red intervals make up the main street phase.

Pre-emption

For definitions specific to pre-emption, see section on preemption.

Recall

A feature in traffic actuated controllers which may cause the automatic return of the right-of-way to a street regardless of the absence of actuation on that street.

Reference Line

A line perpendicular to the time axis on a time space diagram. Preferably it should be drawn through all artery greens. It should not be drawn through the yield point or clearance interval of any signal.

Section

Any portion of a traffic control network (system) which can be controlled by a single set of timing parameters (traffic control timing pattern). A synonym often used for section is subsystem.

Skip

A feature of actuated traffic signal controls which omits operation of a phase or movement that does not have a call.

Split

The segment of the cycle length allocated to each phase or interval that may occur (expressed in percent or seconds). In an actuated controller unit, split is the time in the cycle allocated to a phase. In a pre-timed controller unit (closed loop), split is the time allocated to an interval.

Surveillance

The monitoring of traffic performance and control system operation.

System

Two or more traffic signals operating in coordination.

System Detector

An 1800 mm X 1800 mm (6' x 6') loop that is used for surveillance and gives information such as speed, volume and delay.

Time-Base Coordination

Traffic signal coordination which uses an electronic clock, rather than an interconnect cable.

Time Before Reduction (TBR) - The time in seconds before the unit extension is reduced

from the value of passage time to minimum gap.

Time to Reduce (TTR) - The time in seconds set to reduce the unit extension from

the value of passage time to minimum gap.

Time-of-Day Pattern A timing pattern (set of cycles, splits, and offsets) for a section

which can be implemented at certain time(s) in the day.

Traffic Responsive Pattern A timing pattern (set of cycles, splits, and offsets) for a section

which can be implemented in response to traffic flow.

Volume Density A controller operation that will automatically adjust the timing of

a phase by using variable initial and/or gap reduction. For detailed description refer to NEMA TS2 Standards, 3.5.3.2

phase intervals.

Yield Period The part of the signal cycle during which the secondary phase

can start its green interval. Usually 3% of the cycle length.

Yield Point The point where the artery yield to another phase (beginning of

artery yellow.)

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Mr. Richard H. Nicol Transportation Supervising Engineer Division of Traffic Engineering Connecticut Department of Transportation P.O. Box 317546 Newington, Connecticut 06131-7546

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FAX (860) 594-3376 E-MAIL Richard.Nicol@PO.State.CT.US

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